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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,271	01/23/2002	Gary R. Janik	KLA-003	8560

22888 7590 05/17/2006

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EXAMINER	
STOCK JR, GORDON J	

ART UNIT	PAPER NUMBER
2877	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/056,271	JANIK ET AL.	
	Examiner	Art Unit	
	Gordon J. Stock	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,8-21,24,27,33-37,41,43,44,47,51 and 52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,8-21,24,27,33-37,41,43,44,47,51 and 52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Amendment received on March 3, 2006 has been entered into the record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1, 8, 14, 17, 18, 19, 20, 21, 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Elliott et al. (5,669,979)-previously cited.**

As for **claim 1,** Elliott discloses in a photoreactive surface processing system: an energy beam (pulsed) source for directing an energy beam at a contaminant layer of a test sample on a stage to remove the layer from the test sample; a light scattering monitoring system to test the cleaning of the surface (Fig. 15: 422, 518, 520, 436, 476, 414; col. 21, lines 25-40); wherein, the heating is localized (col. 9, lines 10-15) and the area is small by beam spot size (col. 10, lines 64-67). The test sample may comprise a thin film (Fig. 13: substrate with implanted photoresist layer; col. 25, lines 25-30; col. 26, lines 1-10). He does not explicitly state that the monitor being a thin film analysis module for testing a thin film. However, again, he teaches that thin film's may be laser cleaned (col. 25, lines 25-67; col. 26, lines 1-25) and that the monitor tests cleanliness (col. 21, lines 25-40). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the monitor was a thin film analysis module for testing thin films, for the monitor tests the cleanliness of laser cleaned thin film samples. As for the phrase, "for performing at least one of ...in the contaminant layer," it has been held that a

recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

As for creating an opening in the cleaned surface, Elliott does not explicitly state this, but implies it by the initial cleaning of the surface; wherein, an initial opening would be formed (Fig. 1: 14; Fig. 5: at 104; Fig. 6: 142) and implies openings prior to complete cleaning of the wafer (Fig. 10b). It would be obvious to one skilled in the art at the time the invention was made that an opening was formed in the top layer being cleaned, for upon initial cleaning of the wafer an opening would have been formed in the layer and a substantial opening would be formed on the wafer's contaminant layer before the complete removal of the contaminant layer during the sweep cleaning of the wafer through scanning.

As for **claims 8 and 14,** Elliott discloses everything as above (see **claim 1**). And Elliott discloses the light source may be a pulsed laser source (**claim 8**) such as an alexandrite source (**claim 14**)(col. 21, lines 13-15).

As for **claim 17**, Elliott discloses everything as above (see **claim 1**). And Elliott discloses a fiber may be used to transmit the laser light to the test region (col. 26, lines 20-30).

As for **claim 18**, Elliott discloses everything as above (see **claim 1**). And Elliott discloses that the system may comprise a flashlamp (col. 11, lines 60-67).

As for **claim 19**, Elliott discloses everything as above (see **claim 1** above). As for a non-functional region, Elliott does not explicitly state that the analysis area comprises a non-functional area. However, ion implantation is used to fabricate semiconductor devices; whereby, there would be areas of ion doping and area of no ion doping (col. 23, lines 5-55). Therefore, it

would be obvious to one of ordinary skill in the art at the time the invention was made that the test sample would comprise areas of non-functionality and functionality for a test sample such as a wafer has areas that are ion doped and not ion doped.

As for **claim 20**, Elliott discloses everything as above (see **claim 1** above). And Elliott discloses that the beam spot is 20 microns by 20 microns (col. 10, lines 64-67).

As for **claims 21 and 24,** Elliott discloses everything as above (see **claim 1 above**). In addition, Elliott discloses the probe beam (**claim 21**) of the monitoring laser of the monitoring system, the probe structure (**claim 24**), to be applied to the test surface is approximately at the same position as the cleaning laser (Fig. 15: 518, 420, 428, 416).

4. **Claims 9-13 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Elliott et al. (5,669,979)—previously cited** in view of **Morris et al. (6,472,295)—previously cited.**

As for **claims 9-13, and 15,** Elliot discloses everything as above (see **claim 8 above**). In addition, Elliott discloses the use of a Nd:YAG (**claim 10**) pulsed laser (**claim 9**) operating at 532 nm (**claim 11**), 355nm (**claim 12**), 266nm, and 1064nm (col. 12, lines 13-20). As for the laser being a modulated continuous laser (**claim 15**) with a laser diode (**claim 13**) and being q-switched (**claim 9**), Elliott is silent. However, Morris teaches in an apparatus for laser ablation teaches that a pulsed Nd:YAG laser comprises a diode and suggests that it is continuous made pulsed through modulation and q-switching (col. 2, lines 30-55). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the system comprised a continuous laser made pulsed through modulation that is also q-switched and comprised a laser diode in order to provide lasing, control, and pulse modulation for the pulsed Nd:Yag laser.

5. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Elliott et al. (5,669,979)-previously cited** in view of **Haight et al. (6,333,485)-previously cited.**

As for **claim 16**, Elliott discloses everything as above (see **claim 1**). However, Elliott is silent concerning the laser producing energy between 5 and 100 microjoules. Haight in a method for minimizing sample damage during laser ablation teaches of using a pulse energy between 10 nanojoules and 1 millijoule to prevent undesired damage to the material underneath the ablated surface (col. 1, lines 45-50; col. 3, lines 10-15). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have the pulse energy between 5 and 100 microjoules, for an energy between 10 nanojoules and 1 millijoule prevents undesired damage to the material underneath the ablated surface.

6. **Claims 27, 33, 35, 36, 37, 41, 44, and 47** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Elliott et al. (5,669,979)-previously cited** in view of **Fukuda et al. (4,876,983)—previously cited.**

As for **claims 27 and 41,** Elliott discloses in a photoreactive surface processing system: an energy beam (pulsed) source for directing an energy beam at a contaminant layer of a test sample on a stage to remove the layer from the test sample; a light scattering monitoring system to test the cleaning of the surface (Fig. 15: 422, 518, 520, 436, 476, 414; col. 21, lines 25-40) wherein, the heating is localized (col. 9, lines 10-15) and the area is small by beam spot size (col. 10, lines 64-67). The test sample may comprise a thin film (Fig. 13: substrate with implanted photoresist layer; col. 25, lines 25-30; col. 26, lines 1-10). He does not explicitly state that the monitor being a thin film analysis module for testing a thin film. However, again, he teaches that thin film's may be laser cleaned (col. 25, lines 25-67; col. 26, lines 1-25) and that the monitor

tests cleanliness (col. 21, lines 25-40). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the monitor was a thin film analysis module for testing thin films, for the monitor tests the cleanliness of laser cleaned thin film samples.

Elliott discloses that the monitoring system comprises a light scattering system (col. 21, lines 30-35). And that Auger analysis may be used to identify contaminants (col. 55-60). He does not explicitly state that Auger analysis is a non-contact electrical system. Fukuda in a plasma operation apparatus suggests that Auger analysis is a non-contact system that deals with scattering (col. 11, lines 25-55). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the system comprise a non-contact electrically based system such as Auger electronic spectroscopy to determine purity of the test area and therefore possible presence of residual contaminants.

As for creating an opening in the cleaned surface, Elliott does not explicitly state this, but implies it by the initial cleaning of the surface; wherein, an initial opening would be formed (Fig. 1: 14; Fig. 5: at 104; Fig. 6: 142) and implies openings prior to complete cleaning of the wafer (Fig. 10b). It would be obvious to one skilled in the art at the time the invention was made that an opening was formed in the top layer being cleaned, for upon initial cleaning of the wafer an opening would have been formed in the layer and a substantial opening would be formed on the wafer's contaminant layer before the complete removal of the contaminant layer during the sweep cleaning of the wafer through scanning.

As for **claim 33**, Elliott in view of Fukuda discloses everything as above (see **claim 27**). In addition, Elliott discloses the energy beam is a pulsed source (Fig. 15: 422, 448)

As for **claim 35**, Elliott in view of Fukuda discloses everything as above (see **claim 27** above). As for a non-functional region, Elliott does not explicitly state that the analysis area comprises a non-functional area. However, ion implantation is used to fabricate semiconductor devices; whereby, there would be areas of ion doping and area of no ion doping (col. 23, lines 5-55). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the test sample would comprise areas of non-functionality and functionality for a test sample such as a wafer has areas that are ion doped and not ion doped.

As for **claim 36**, Elliott in view of Fukuda discloses everything as above (see **claim 27** above). And Elliott discloses that the beam spot is 20 microns by 20 microns or larger in area (col. 10, lines 64-67).

As for **claim 37**, Elliott in view of Fukuda discloses everything as above (see **claim 27**). In addition, as for a second location of cleaning and monitoring, the wafer is scanned; thereby, multiple areas of exposure and measurement/testing may be accomplished (Figs. 10a and 10b).

As for **claims 44 and 47**, Elliott in view of Fukuda discloses everything as above (see **claim 41**). In addition, Elliott discloses the probe beam (**claim 44**) of the monitoring laser of the monitoring system, the probe structure (**claim 47**), to be applied to the test surface is approximately at the same position as the cleaning laser (Fig. 15: 518, 420, 428, 416).

7. **Claims 34 and 43** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Elliott et al. (5,669,979)—previously cited** in view of **Fukuda et al. (4,876,983)—previously cited** further in view of **Morris et al. (6,472,295)—previously cited.**

As for **claims 34 and 43,** Elliot in view of Fukuda discloses everything as above (see **claims 33 and 41 above**). In addition, Elliott discloses the use of a Nd:YAG pulsed laser

operating at 532 nm, 355nm, 266nm, and 1064nm (col. 12, lines 13-20). As for the laser being a modulated continuous laser with a laser diode and being q-switched, Elliott is silent. However, Morris teaches in an apparatus for laser ablation teaches that a pulsed Nd:YAG laser comprises a diode and suggests that it is continuous made pulsed through modulation and q-switching (col. 2, lines 30-55). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the system comprised a continuous laser made pulsed through modulation that is also q-switched and comprised a laser diode in order to provide lasing, control, and pulse modulation for the pulsed Nd:Yag laser.

8. **Claim 51 and 52** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Livengood et al. (6,355,494)—previously cited** in view of **Burmer (5,336,636)** and **Hartswick (6,274,393).**

As for **claim 51,** Livengood in a method and apparatus for controlling material removal from a semiconductor substrate using induced current endpointing discloses the following: an energy beam source (Fig. 2: 120) for directing at the contaminant layer, etchant layer of a semiconductor substrate that was removed by etching laser (Fig. 2: 210) to remove a portion of the contaminant layer (Fig. 2: 210) to expose an analysis area , a charged induced area (Fig. 2: 224 and 208) on the thin film, the n-well region (Fig. 2: n-well of p-n junction 202); a thin film analysis module comprising a contact-based electrical analysis system (Fig. 2: 118) that measures film thickness (Fig. 3) by simply measuring the induced current of the film, the pn junction layer (col. 4, lines 25-30; Fig. 2: pwell and nwell layer; Fig. 4a: nwell, pwell, nwell layer on substrate). As for the phrase, "for measuring the thin film at the analysis area," it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to

be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

As for localized cleaning by heating a small area of the contaminant layer until the area is vaporized, Livengood does not explicitly state this. However, he suggests it for a small area is vaporized as depicted by the particular trench formed (Fig. 2 : 210, 146). In addition, Burmer in method for contacting conductive structures teaches that laser ablation is localized (col. 2, lines 15-25), and Hartswick discloses localized heating (col. 2, lines 58-62). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have localized heating to precisely remove layers for integrated circuit production.

As for **claim 52,** Livengood in a method and apparatus for controlling material removal from a semiconductor substrate using induced current endpointing discloses the following: an energy beam source (Fig. 2: 120) for directing at the contaminant layer, etchant layer of a semiconductor substrate that was removed by etching laser (Fig. 2: 210) to remove a portion of the contaminant layer (Fig. 2: 210 with depth P) to expose an analysis area , a charged induced area (Fig. 2: 224 and 208) on the thin film (T of p-substrate in Fig. 2); a thin film analysis module comprising a contact-based electrical analysis system (Fig. 2: 118) that measures film thickness (Fig. 3). As for placing the semiconductor on a stage, Livengood is silent. However, he implies a stage (Fig. 1: at 102). Examiner takes official notice that stages are well-known in the art for supporting samples. Therefore, it would be obvious to one skilled in the art at the time the invention was made to place the semiconductor on a stage in order to provide the sample with support during testing and etching.

As for localized cleaning by heating a small area of the contaminant layer until the area is vaporized, Livengood does not explicitly state this. However, he suggests it for a small area is vaporized as depicted by the particular trench formed (Fig. 2 : 210, 146). In addition, Burmer in method for contacting conductive structures teaches that laser ablation is localized (col. 2, lines 15-25), and Hartswick discloses localized heating (col. 2, lines 58-62). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have localized heating to precisely remove layers for integrated circuit production.

Response to Arguments

9. Applicant's arguments of March 3, 2006 with respect to **claims 1, 8-17, 18-21, 24, 27, 33-37, 41, 43, 44, and 47** have been fully considered but they are not persuasive. Specifically, on pages 10-13 of Remarks that Elliott fails to teach a beam source creating an opening in the contaminant layer as well as performing the analysis on the thin film; wherein, the energy beam heats only a small area of the contaminant layer, Examiner disagrees. Elliott discloses in a photoreactive surface processing system: an energy beam (pulsed) source for directing an energy beam at a contaminant layer of a test sample on a stage to remove the layer from the test sample; a light scattering monitoring system to test the cleaning of the surface (Fig. 15: 422, 518, 520, 436, 476, 414; col. 21, lines 25-40); wherein, the heating is localized (col. 9, lines 10-15) and the area is small by beam spot size (col. 10, lines 64-67). The test sample may comprise a thin film (Fig. 13: substrate with implanted photoresist layer; col. 25, lines 25-30; col. 26, lines 1-10). He does not explicitly state that the monitor being a thin film analysis module for testing a thin film. However, again, he teaches that thin film's may be laser cleaned (col. 25, lines 25-67; col. 26, lines 1-25) and that the monitor measures cleanliness (col. 21, lines 25-40).

Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the monitor was a thin film analysis module for testing thin films, for the monitor tests the cleanliness of laser cleaned thin film samples.

As for creating an opening in the cleaned surface, Elliott does not explicitly state this, but implies it by the initial cleaning of the surface; wherein, an initial opening would be formed (Fig. 1: 14; Fig. 5: at 104; Fig. 6: 142) and implies openings prior to complete cleaning of the wafer (Fig. 10b). It would be obvious to one skilled in the art at the time the invention was made that an opening was formed in the top layer being cleaned, for upon initial cleaning of the wafer an opening would have been formed in the layer and a substantial opening would be formed on the wafer's contaminant layer before the complete removal of the contaminant layer during the sweep cleaning of the wafer through scanning.

In regards to page 10 and page 13 of Remarks mentioning the use of fluid, 'heat only a small area of the contaminant layer until the small area is vaporized' does not preclude heating a fluid around contaminant layer during a localized heating/cleaning operation.

As for the argument on page 11 paragraph 2 of Remarks that Elliott fails to teach the thin film analysis for 'it has nothing to do with the analysis of the thin film that can be accessed via the hole created by the energy beam source,' Examiner disagrees. As for the phrase, "for performing at least one of ...in the contaminant layer," it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987). In addition, Elliott's system measures

cleanliness just as openings are created (Fig. 15: 518, 520, 448). 'An opening' does not preclude an initial opening formed at the start of laser cleaning the wafer surface.

10. Applicant's arguments with respect to **claims 51 and 52** have been considered but are moot in view of the new ground(s) of rejection. However, the Examiner will discuss the arguments in view of the Livengood reference (6,355,494). In regards to the Remarks on page 15 that Livengood fails to teach localized cleaning operation, please see new rejection above (see claims 51-52). On page 16 of Remarks that Livengood does not teach anything of an analysis of an underlying thin film, Examiner disagrees. Livengood discloses an ammeter that measures the current of pn junction layer (Fig. 2: 118 with pn junction layer: 214 and 306; and Fig. 4a: Nwell, Pwell, Nwell). In addition, 'localized cleaning' does not preclude 'ablating' nor 'localized etching.'

Conclusion

11. Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a

demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the **next reply** after the Office action in which the well known statement was made.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Fax/Telephone Numbers

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and

2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: **(571) 273-8300**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431. The examiner can normally be reached on Monday-Friday, 10:00 a.m. - 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr., can be reached at 571-272-2800 ext 77.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gs
May 9, 2006

Gregory J. Toatley, Jr.
Supervisory Patent Examiner
Art Unit 2877

15/May/06